



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,502	12/17/2001	Mark B. Rosenbluth	10559/619001 / P12858	4328
20985	7590	04/20/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			ELMORE, STEPHEN C	
			ART UNIT	PAPER NUMBER

2186

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/024,502	Applicant(s) ROSENBLUTH ET AL.	
	Examiner Stephen Elmore	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


STEPHEN C. ELMORE
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

K

DETAILED ACTION

1. This Office action responds to the amendment, filed 13 January 2005, which amended claims 1-5 and 12.
2. Claims 1-14 remain for examination.

Drawings

3. The corrected or substitute drawings received on 13 January 2005 are **approved**.
4. The objection to the drawings is **withdrawn**.

Specification

5. The previous objections to the specification have been overcome by the amendment, however, the following new objections are made to the specification:

- a. the disclosure is objected to because:
on page 7, line 15, and again at page 8, line 8, the "queue manager programming engine" is mis-labeled "26" because this element is actually labeled as reference character "27" in Figure 2;
- b. the specification is objected to because the section labeled "Brief Description of the Drawings" does not include new Figure 5A;
- c. the disclosure is objected to because:

Applicant is reminded of 37 CFR § 1.75 (d)(1) which states that the claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. See § 1.58(a).

in Claim 1, the terminology "information carrier" fails to have antecedent basis in the specification.

Art Unit: 2186

Appropriate correction is required.

Claim Objections

6. Claim 8 is objected to because of the following informality: "queues descriptors" appears to be a typographic error since "queues descriptors" should instead be "queue descriptor" because the specification does not use the plural "queues".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The rejections under 35 U.S.C. § 112, second paragraph, are **withdrawn** due to the amendment, however, the following new rejections are **given**.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The amended claim(s) contain an element which has no support in the original disclosure. *Waldemar Link GmbH & Co. v. Osteonics Corp.* 32 F.3d 556, 559, 31 USPQ2d 1855,1857 (Fed. Cir. 1994); *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).

Claim 1 recites the element "information carrier" however, the disclosure as originally filed does not include or in any way specify the feature "information carrier," therefore, the element "information carrier" represents new matter under 35 USC § 132 and Claims 2 and 3 inherit this deficiency.

10. Claims 1-3 and 11-12 are rejected under 35 USC § 112, first paragraph, on the basis that these claims presents a fact situation by analogy to that of a single means claim (or by analogy a single step) where a means recitation does not appear in combination with another

Art Unit: 2186

recited element of means (or step), the claim is subject to an undue breadth rejection under 35 USC § 112, first paragraph, where in,

Claim 1,

the single step being,

- a. the step of *"execute a write descriptor count instruction"*; and in

Claim 11,

the single step being,

- b. the step of *"maintain a count field"*;

See *In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (a single means (or by analogy a single step) which covered every conceivable means for achieving the stated purpose (or by analogy every conceivable step) was held nonenabling for the scope of the claim because the specification disclosed at most only those means (step) known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means or step) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. See MPEP 2164.08(a). Claims 2, 3 and 12 inherit the deficiencies of Claims 1 and 11.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-3 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because:

- a. Claims 1 and 11 -- the scope of these claims are indefinite because these claims contain no apparent transitional term, or transitional phrase, therefore, absent the determination of a transitional term it remains unclear where the preamble ends and the body of the claim

Art Unit: 2186

begins, which makes the scope of coverage of these claims uncertain. Claims 2-3 and 12-14 inherit this deficiency.

b. Claim 1 -- the language "the computer program product being operable (emphasis added) to cause data processing apparatus to..." includes the phraseology "being operable" but this language is indefinite in scope of meaning since it is unknown whether or not the "operable" functionality is actually performed or not, since it is not positively asserted that it is performed, but is merely suggestive in scope because "being operable" does not necessarily mean that something is operated, it merely expresses that something has the potential to "operate" but does not actually require it to so perform, such language making it uncertain as to whether or not the action is being claimed as performed or not. Claims 2 and 3 inherit this deficiency.

c. Claim 1 -- the language "A computer program product, tangibly embodied in an information carrier (emphasis added)" is unclear in scope of meaning because the terminology "information carrier" embodies at least the following meanings:

1) a wireless radio frequency connection between a sender and a receiver, for example, where "information" is "carried" from the sender to the receiver using the wireless medium (air, which is not tangible) and a radio frequency carrier wave carrying, or encoded with, the "information" (the carrier wave not being tangible); or alternatively,

2) a wired radio frequency connection wherein "information carrier" can also encompass the same formulation of a sender and a receiver but in this instance the medium is a wired networking connection, e.g. LAN, where the "information" is "carried" from the sender to the receiver across the medium of a ethernet cable (coaxial, which incidentally is tangible) in which the radio signal is being transmitted across the connection while carrying the "information" in a carrier wave, in a wired cable or circuit,

Art Unit: 2186

given that the circuit is tangible in this case, but most importantly, the carrier wave which contains or "embodies" the information is not tangible because radio frequency waves are not tangible;

therefore, the juxtaposition of the two terms "tangibly embodied" and "information carrier" suggest overall a tangible embodiment, but since an information carrier (i.e., a carrier wave) is still not tangible, the use of these two terminologies taken together suggest a contradiction in meaning, Applicant's intended meaning is not clear, and so, the scope of the claim cannot be ascertained. Claims 2 and 3 inherit this deficiency.

Claim Rejections - 35 USC § 101

13. The rejections of claims 1-3 under 35 USC § 101 are **maintained**, and further, due to the amendment the rejections are rewritten as follows to address the newly added language and new rejections are **given**.

14. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

15. Claims 1-3 and 11-14 are rejected under 35 U.S.C. 101 because

a. Claim 1 -- the claimed invention is directed to non-statutory subject matter.

Notwithstanding the "tangibly embodied" language in the claim, nevertheless, in accordance with the 35 USC 112, second paragraph rejection pertaining to this language, it is considered that there is no tangible embodiment of the computer program product since the computer program product does not appear to be stored in any computer readable medium and are not being executed from such a medium, therefore, the scope of the claim falls outside of the statutory realm for computer program products; and,

b. Claims 1-3 -- the claimed invention lacks patentable utility.

Art Unit: 2186

The scope of the claims fail to assert any patentable utility in the realm of any computer technology, the mere writing by a processor of a single word containing a queue count for each of a plurality of queue entries in a queue array cache, such activity taken by itself without more, is nothing more than the manipulation of data with no useful result or practical benefit being claimed or asserted; and,

- c. Claims 11-14 -- the claimed invention lacks patentable utility.

The scope of the claims fail to assert any patentable utility in the realm of any computer technology, the mere maintenance by a processor of a count field for queue descriptors of active output queues current in a memory, such activity taken by itself without more, is nothing more than the manipulation of data with no useful result or practical benefit being claimed or asserted.

Claim Rejections - 35 USC § 102

16. The rejections under 35 U.S.C. § 102 are **maintained** and are repeated as follows to incorporate the amended language and to better apply the art of record.

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 4-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wolrich et al., US 2003/0110166, ("Wolrich").

Wolrich teaches the claimed invention as a networking system queue management method, see [0010], comprising:

Claim 4,

Art Unit: 2186

a. the limitation, in a network device, maintaining a count field for queue descriptors of active output queues current in a memory of the network device, is taught, see paras [0010-0017], as a "network processor," "queue descriptors," and "queue count," where the claimed "*queue descriptors*" is taught by the feature "queue descriptors 51a-51n," see [0017] and the claimed "*count field*" is taught by the feature "the third block 56a-56n that contains a "queue count" for the queue entry" see [0017];

Claim 5,

b. the count field is stored in a word, is taught, see [0015], as a count field of 7 bits being stored in a word 32 bits long;

Claims 6-7,

c. the limitations, writing the count field subsequent to incrementing (or decrementing) a count of buffers for a selected queue, is taught, see Fig. 3A and [0020], as incrementing (or decrementing) the queue count by one, and also taught in claim 17 of Wolrich in the claim limitation, i.e., "modify the linked list...based on the cell count..." which writes the count field after the count is modified (incremented or decremented).

Response to Arguments

19. Applicant's arguments filed 13 January 2005 in response to the previous Office action have been fully considered but they are not persuasive.

As to the Remarks:

Pertaining to the 101 rejections,

a. that claims 1-3, as amended, recite a computer program product, tangibly embodied in an information carrier, and thus recite statutory subject matter, however, this argument is not persuasive because it is not convincing that the claimed computer program

Art Unit: 2186

product is actually tangibly embodied, nor is it considered that the claims assert or evince any utility, as already explained in the above newly made 112 and 101 rejections of these claims;

Pertaining to the 102 rejections,

b. that Woldrich (sic) neither describes nor suggests a count field for queue descriptors of active output queues, but instead, discloses a "cell count", which argument is not persuasive because the rejection of record, as above explained, piecewise matches the elements of the claimed (amended) limitations against the teaching reference Wolrich, the disclosed cell count being irrelevant to the rejection of record and to the applied interpretation of Wolrich's teachings, and therefore, does anticipate the claimed invention.

Allowable Subject Matter

20. Claims 9-10 are allowable over the prior art of record.

21. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and the previously noted objection due to a minor informality were corrected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Elmore whose telephone number is (571) 272-4436. The examiner can normally be reached on Mon-Fri from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2186

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen Elmore
Primary Examiner
Art Unit 2186

April 16, 2005